

REMARKS

Upon entry of the present amendment, claims 1-2, 4-9 and 11-14 will remain pending in the above-identified application and stand ready for further action on the merits.

Claims 1, 4, 8, 11 and 14 have been amended. Claims 3 and 10 have been cancelled. The present amendments to the claims do not introduce new matter into the application as originally filed.

Support for the amendments made herein to the claims can be found at page 3, lines 18-23; prior claims 3 and 10 (*now canceled*); and in Figures 2 and 4E of the present specification.

Accordingly, entry of the instant amendment is respectfully requested at present.

Claim Rejections Under 35 USC § 103(a)

Claims 1-14 have been rejected under the provisions of 35 USC § 103(a) as being unpatentable over **Ikeda et al. EP '278** (EP 1 246 278) in view of **Kawakami US '591** (US 5,641,591).

Reconsideration and withdrawal of the above rejection is respectfully requested based on the following considerations.

Legal Standard for Determining Prima Facie Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally,

the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

“There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.).

“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in

the art.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Supreme Court of the United States has recently held that the teaching, suggestion, motivation test is a valid test for obviousness, but one which cannot be too rigidly applied. See *KSR Int'l Co. v. Teleflex Inc.*, 127 SCt 1727, 82 USPQ2d 1385 (U.S. 2007). The Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, *ibid.*, reaffirmed the Graham factors in the determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under Graham are:

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating evidence of secondary consideration.

Graham v. John Deere, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (U.S. 1966).

The Court in *KSR Int'l Co. v. Teleflex, Inc.*, *supra.*, did not totally reject the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. Rather, the Court recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a).

Even so, the Court in *KSR Int'l Co. v. Teleflex, Inc.*, *ibid.*, rejected a rigid application of the "teaching, suggestion, or motivation" (TSM) test, which required a showing of some

teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the prior art elements in the manner claimed in the application or patent before holding the claimed subject matter to be obvious.

Further, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336, quoted with approval in *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007).

Distinctions Over the Cited Art

Amended claims 1 and 8 are clearly distinguished from **Ikeda et al. EP ‘278**, because Ikeda et al. does not teach that the dots are completely separated from each other.

Kawakami US ‘591 discloses an anode comprising an electrically conductive material and having protrusions made of the electrically conductive material on the surface of the electrically conductive material. The protrusions are covered by insulating or semiconductive film. On charging, an active material is deposited at a pore portion between each adjacent protrusion (*see claim 1, column 9, lines 18-25, Fig. 2 and Fig. 3 of US ‘591*). As the total capacity of the openings formed by the electrically conductive material and the insulating or semiconductor film is greater than the total volume of battery active materials deposited upon operating charging (*see claim 4 and Fig. 3 of US ‘591*), the active material does not project

outward from the anode surface. And the anode active material used in Kawakami US '591 is Li or Zn (*see column 16, lines 20-21 and column 16, line 33 of US '591*).

However, Kawakami US '591 fails to disclose that the dots are completely separated from each other and project outward from the current collector and that the metallic material able to be alloyed with Li is at least one element selected from the group consisting of elements of group 14 and alloy thereof.

Furthermore, there is no reason to combine Ikeda et al. EP '278 with Kawakami US '591, because according to Ikeda et al., the column portions are made by gaps formed on the continuous film while according to Kawakami, the dots are completely separated by protrusions formed on the current collector, that is, the protrusions are a part of the current collector, and according to Kawakami, the protrusions inevitably are required to be covered with insulating or semiconductive film, while according to Ikeda et al., the film of the active material must be formed directly on the surface of the current collector.

Accordingly, one of ordinary skill in the art would find no motivation to combine Ikeda et al. EP '278 with Kawakami US '591 to arrive at the presently claimed invention. Moreover, one of ordinary skill in the art upon reviewing the two disclosures of the cited art would be provided with no rationale or reason to arrive at the instant invention as claimed.

As such, the USPTO's contentions regarding the obviousness of instantly pending claims 1-2, 4-9 and 11-14 must be reconsidered, inasmuch as the cited art references of Ikeda et al. EP '278 and Kawakami US '591 are incapable of properly supporting an obviousness rejection of the pending claims, and thus any rejection based thereon is unsustainable.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of pending claims 1-2, 4-9 and 11-14 are allowed and patentable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

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